

From glowbugs@theporch.com Tue Oct 1 16:13:49 1996  
Return-Path: <glowbugs@theporch.com>  
Received: from uro (localhost.theporch.com [127.0.0.1]) by uro.theporch.com  
(8.8.0/AUX-3.1.1) with SMTP id PAA17661; Tue, 1 Oct 1996 15:49:22 -0500 (CDT)  
Date: Tue, 1 Oct 1996 15:49:22 -0500 (CDT)  
Message-Id: <961001164730\_298249481@emout06.mail.aol.com>  
Errors-To: conard@tntech.campus.mci.net  
Reply-To: glowbugs@theporch.com  
Originator: glowbugs@theporch.com  
Sender: glowbugs@theporch.com  
Precedence: bulk  
From: glowbugs@theporch.com  
To: Multiple recipients of list <glowbugs@theporch.com>  
Subject: GLOWBUGS digest 309  
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

#### GLOWBUGS Digest 309

Topics covered in this issue include:

- 1) Re: Tube gear (fwd)  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 2) Re: Greetings and Intro, and a PROPOSAL  
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 3) Re: Greetings and Intro, and a PROPOSAL  
by rdkeys@csemail.cropsci.ncsu.edu
- 4) Re: Greetings and Intro --- Voodoo and Low Tech  
by rdkeys@csemail.cropsci.ncsu.edu
- 5) digest  
by John D Young <jdy@whitney.ufl.edu>
- 6) 6V6 Xtal Osc from 1950's  
by "Don Ehrlich" <dehrlich@eldec.com>
- 7) Thermionic emission  
by KA9EGW@aol.com
- 8) Re: Tube gear (fwd)  
by mjsilva@ix.netcom.com (michael silva)
- 9) Digest available?  
by penc@elan.mrwo.mcgill.ca
- 10) Re: Tube gear (fwd)  
by rdkeys@csemail.cropsci.ncsu.edu
- 11) Re: Good Paint Sprayers  
by haynes@cats.ucsc.edu (Jim Haynes)
- 12) Group buy/build simple TX/RX  
by Guy Dragoo <gdrag@proedge.com>
- 13) I 'ear a passle o' glowbugs about ta swarm.....(:+}}.....  
by rdkeys@csemail.cropsci.ncsu.edu

- 14) Re: Group buy/build simple TX/RX  
by Jeffrey Herman <jherman@hawaii.edu>
- 15) GB request  
by mjsilva@ix.netcom.com (michael silva)
- 16) Re: Group buy/build simple TX/RX  
by rdkeys@csemail.cropsci.ncsu.edu
- 17) Re: Thermionic emission  
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 18) Re: Tube gear (fwd)  
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 19) Recycling old Childrens Bander Gear for parts  
by rdkeys@csemail.cropsci.ncsu.edu
- 20) More construction thoughts -- capacitors  
by rdkeys@csemail.cropsci.ncsu.edu
- 21) Re: Tube gear (fwd)  
by rdkeys@csemail.cropsci.ncsu.edu
- 22) WTB: Tubes  
by Thorelect@aol.com

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Date: Tue, 1 Oct 1996 05:32:05 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: glowbugs@theporch.com  
Subject: Re: Tube gear (fwd)  
Message-ID: <199610011231.IAA14057@user2.mnsinc.com>

> From: Jeffrey Herman <jherman@hawaii.edu>

The following appeared on QRP-L; let's see if we can get this guy to sub to GB! He'd be a welcome addition. Jeff KH2PZ

----- Forwarded message -----  
From: Alex Mendelsohn <alexm@pennwell.com>  
Subject: Tube gear

It sure is interesting to see the discussion of the tube-type gear for QRP here on QRP-L. Gee, I remember the Pop'tronics and Radio-Electronics articles of the late Fifties when I was a kid. I vaguely recall how I built a 6AQ5 rig on a clear plastic box of some sort. In those days, I had no idea about how to couple power into my 12-foot high dipole, and didn't work much with the 6AQ5 rig! Snagged a few locals though.

I did manage to QSO with Ivor Stafford, VK3XB on the 40 meter Novice band however (and still cherish the pasteboard). I'm certain some of

the older members of QRP-L remember when Ivor used to listen for Novices on 40 meters. Herb Brier (W9EGQ?) would list the callsigns of the Stateside Novices that Ivor worked. What a thrill to QSO him with my 6AG7-6L6 Heathkit AT-1 and pipsqueak antenna (I wonder if anyone on the list here has an AT-1 for sale or swap? I have a really nice DX-35 to trade!)

Much more recently, I put together a 6L6 Colpitts oscillator for use on the Antique Wireless Association's annual Old Time Radio contest. Trying to keep the replica of a 1939 rig reasonably authentic, I used a Type 80 rectifier and a VR-150 gaseous regulator tube and a glass 6L6. It runs about 8 watts input and perhaps 5 or 6 watts out. My only concession to modernity was the use of a pi-net in the plug-in coil plate circuit and the use of a TV-style power transformer donated to me by N2FNI.

What a ball I've had with this xtal-controlled rig on 80 and 40.  
[snip]

If anyone would like a schematic of either rig, I'd be happy to supply copies if you'll send along an SASE to make my already harried and busy life easier. CBA is okay.

Vy 73, Alex in Kennebunk, Maine, QRP-L #687   .-.-.  
=====

Wow - great Jeff! We certainly ought to get him over here!  
Heck he could probably teach us ALL a thing or two.  
You can BET that \*I\* will be sending him an SASE!

AF4K / G3XLQ  
Brian Carling in Gaithersburg, Maryland, USA  
bry@mnsinc.com  
<http://www.mnsinc.com/bry/>

-----  
Date: Tue, 01 Oct 1996 09:43:57 -0400  
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>  
To: glowbugs@theporch.com  
Cc: brobie@gwis2.circ.gwu.edu  
Subject: Re: Greetings and Intro, and a PROPOSAL  
Message-ID: <9610011343.AA02773@speckle.ncsl.nist.gov>

At 02:37 PM 9/30/96 -0500, you wrote:  
>Hello Everyone,  
>

>This is my first posting to the Glowbugs list.

Welcome, Bob.

> ... (QRP? Toobz? Homebrew? -  
>Jeez, what'll they think of next?)

The august founder of the rec.antiques.radio+phono news group, (one Mr. Bill Robie) is fond of using the term "toobes". This usage initiated a long discussion on said news group which strayed to topics like who was calling whom ignorant and improper, and was the use of terms other than "valve" an affront to people of certain nationalities.

In any case, I HEREBY PROPOSE we use the words "toobe" and 'toobes" in when referring to thermionic emission electronic devices, and the like.

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
(National Institute of Standards and Technology, formerly NBS)  
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

-----  
Date: Tue, 1 Oct 1996 10:48:08 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: morgan@speckle.ncsl.nist.gov  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: Greetings and Intro, and a PROPOSAL  
Message-ID: <9610011448.AA108235@csemail.cropsci.ncsu.edu>

>  
> The august founder of the rec.antiques.radio+phono news group, (one Mr. Bill  
> Robie) is fond of using the term "toobes". This usage initiated a long  
> discussion on said news group which strayed to topics like who was calling  
> whom ignorant and improper, and was the use of terms other than "valve" an  
> affront to people of certain nationalities.  
>  
> In any case, I HEREBY PROPOSE we use the words "toobe" and 'toobes" in when  
> referring to thermionic emission electronic devices, and the like.

Well, for the record, then, we need:

\*\*\*\*\*  
The Canonical List of Vacuum Thermionic Emission Devices (:+\\  
\*\*\*\*\*

1. Vacuum Tube (Tube for short)

2. Vacuum Valve (Valve for short)
3. Thermionic Emission Device (TED for short)
4. Toob, Toobs, Toobe, Toobes, Toobie, Toobies
5. Self-Heating Glass Fet (SHGT for short)
6. Firebottle (FB for short, but not out of context with the FB Phillips code shorthand abbreviation)
7. Glowbottle (GB for short, but not out of context with our GlowBugges)
8. Edison Effect Device (EED for short)
9. Deforest Device (DD for short)
10. (add sufficiently, for proper declaration of appropriate nomenclature)

....etc., etc., etc.

73/ZUT DE NA4G/Bob UP

p.s. We really need to standardize the official Book of Jargon entries so that Webster's 2010 edition will be ``classically correct''.  
(Whogivesahootaboutthepoliticalcorrectness.....WGAHATPC)

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Date: Tue, 1 Oct 1996 11:40:36 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: bmarsh@hicom.net  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: Greetings and Intro --- Voodoo and Low Tech  
Message-ID: <9610011540.AA108344@csemail.cropsci.ncsu.edu>

>

> Hello Everyone,

Welcome Aboard Bob!

> Since I got into radio, I've been trying to learn electronics and how to  
> restore and maintain tube rigs. I have several tube rigs (mostly  
> heathkit) that I'm trying to restore and add to my station. My biggest  
> problem is figuring out where the voodoo stops and the technology

> begins! I'll get there though.

Well, naysayers would have you think that it is all High Tech, but.... it is well knownst amongst those in the know, here and yon, when the faint glow of orange yellow begins to put funny and warm fuzzies on the ceiling [and elsewhere], that certain incantations, nay, exclamations, be required to properly do pennance and put forthe proper holes in the ether, late at night..... Although high Physics and esoteric Mathematics are often espewed as THE worthy knowledge, it be very well true and of goodly merit, to, with some crusty/rusty/salty/seat-o'-de-pants rules de thumb and crafty non-tech or LO Tech, get all manner of ancient and most worthy boatanchors in fine shape. It is probably 5% math and physics, 5% heavy duty electronics, and 90% voodoo knowledge gained from the said incantations amid wafting resins and warm leaden smells, and much musty residues. Aboard this fine glowbugge watch are many fine souls all of whom have rehearsed said incantations, breathed said smells [not to mention blobbed a leaden bb or two in the cup of coffee with disdain, or lobbed it down the shirt pocket or down a pantslegge]. You will find such living knowledge, a most welcome and refreshing experience. One needs only ask, and said incantations will be transmitted with all appropriate perepheral and associated knowledges to your crystal ball.

> 72/73 (whatever) de Bob/KB2SGM

73/ZUT DE NA4G/Bob UP

-----  
Date: Tue, 1 Oct 1996 11:24:58 -0400 (EDT)  
From: John D Young <jdy@whitney.ufl.edu>  
To: glowbugs@theporch.com  
Subject: digest  
Message-ID: <Pine.LNX.3.91.961001112223.29080A-100000@whitney.ufl.edu>

Is glowbugs available in digest form. I like reading the messages but would be happier with one big one per day.

73 John WA8KNE

-----  
Date: Tue, 1 Oct 1996 09:07:58 -0700  
From: "Don Ehrlich" <dehrlich@eldec.com>  
To: glowbugs@theporch.com  
Subject: 6V6 Xtal Osc from 1950's  
Message-ID: <199610011602.AA014215776@eldec.eldec.com>

<Brian - I'd be interested in such a project. Ever since joining the  
<list I've thought about my first novice transmitter in 1954. In those days  
<the ARRL had a publication called HOW TO BECOME A RADIO AMATEUR and if I  
<remember correctly it contained a single 6V6 crystal oscillator  
<transmitter. The little rig was most unique for it was constructed on a  
<wooden chassis formed by 2 end blocks holding 2 parallel slats which  
<between them were a tube and crystal socket. The coil was wound with "BELL  
<WIRE" and used small wooden pegs or dowels vertically into the chassis as a  
<form. There was a matching power supply chassis using a 5Y3.

<I know it was simplest of rigs, running maybe 4 or 6 watts, but as a  
<young teen ager I can't tell you the hours of joy and wonderment it  
<provided. BTW - The receiver was an ARC-5 and I had one crystal, 3701  
<Kcps. I turely was in HOG HEAVEN.....

<I've often thought about reconstructing this rig.

<73's Bob W7VZX

-----  
Hi Bob,

Saw your note about your original 6V6 on wooden slats. The thing I love  
about this list is the number of like minded nostalgic old souls you run  
into.

We were licensed at the same time. I was W7VLH in Redmond, Oregon ... 14  
years old and desperate to get on the air. I build that little 6V6 rig on  
plywood slats with bell wire honeycomb coils and did very well with it.  
The receiver was a 2 tube regen.

10 years ago I built the little glowbug again, a working replica of the  
original. It sat on a shelf in my den looking pretty while I did what  
most hams do with high tech rice boxes.

Then, the glowbug itch struck a year ago and I have been scratching ever  
since. The 6V6 is on the air (only xtal is for 3579.5 colorburst freq)  
and I have built a 3 tube superhet rx to go with it to make a complete  
glowbug station. I still have the original "How To Become...." pamphlet  
too. It is in tatters, but complete.

The little glowbug will become a wallflower again when I finish my  
VFO-Exciter (12AT7 - 6V6). That will become my bandswitching QRP rig and  
exciter for a future 'high power' 6AG7-807 rig.

Arthur Moe KB7WW in Oregon City is also building up the little wooded 6V6 rig. I sent him some bell wire a year ago. So, one of these days when you get yours done we should get the three of them on the air at the same time.

CUL,

Don Ehrlich K7FJ (orig W7VLH) Seattle

-----  
Date: Tue, 1 Oct 1996 11:51:21 -0400  
From: KA9EGW@aol.com  
To: morgan@speckle.ncsl.nist.gov  
Subject: Thermionic emission  
Message-ID: <961001115120\_321847697@emout19.mail.aol.com>

by "toobe" no doubt you're referring to TEFEDs (Thermionic Emission Field Effect Devices), right? (chuckle)

-----  
Date: Tue, 1 Oct 1996 09:34:21 -0700  
From: mjsilva@ix.netcom.com (michael silva)  
To: glowbugs@theporch.com  
Subject: Re: Tube gear (fwd)  
Message-ID: <199610011634.JAA26165@dfw-ix7.ix.netcom.com>

>...I used  
>a Type 80 rectifier and a VR-150 gaseous regulator tube and a glass  
>6L6. It runs about 8 watts input and perhaps 5 or 6 watts out.

By contrast, Fred Sutter c. 1940 was running a 6L6 single-tube rig at 120 Watts input! (600V @ 200mA). Bet the room lit up when he sent a zero!

73,  
Mike, KK6GM

-----  
Date: Tue, 1 Oct 96 12:46:44 -0400  
From: penc@elan.mrwo.mcgill.ca  
To: glowbugs@theporch.com  
Subject: Digest available?  
Message-ID: <9610011646.AA10709@elan.mrwo.mcgill.ca>



Hi guys and gals (if any)?

I have been a qrp enthusiast since I first became interested in amateur radio. At the same time, although I am mainly a solid state person, there is nothing to match the coziness of the glow of a tube in the radio shack. I love the list, but the amount of traffic seems to be growing quite a bit.

Is there a digest form of this mailing list available? I did not see mention on the welcome instructions. Thanks much!

Richard Penc WK2A  
penc@radar.mcgill.ca

-----  
Date: Tue, 1 Oct 1996 14:31:13 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: mjsilva@ix.netcom.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: Re: Tube gear (fwd)  
Message-ID: <9610011831.AA100316@csemail.cropsci.ncsu.edu>

>  
> >...I used  
> >a Type 80 rectifier and a VR-150 gaseous regulator tube and a glass  
> >6L6. It runs about 8 watts input and perhaps 5 or 6 watts out.  
>  
> By contrast, Fred Sutter c. 1940 was running a 6L6 single-tube rig at  
> 120 Watts input! (600V @ 200mA). Bet the room lit up when he sent a  
> zero!  
>  
> 73,  
> Mike, KK6GM

Ol' Fred's stable of Tuffy 6L6 and her brethren are a must reading for any self-respecting Globuggite. There was the QSL-25, the QSL-40, and the QSL-60 and yea well nigh one tenth keelowatty from her biggest brothers. I would imagine we, collectively, should do a small homage to Fred, and perhaps try a quad 6L6 (with a pairs in parallel and in push-pull), or maybe an octet 6L6 (braces in parallel and in push-pull). Oy..... me fears a run on the junque boxen be a' comin' --- ``Battens ye down yer hatches, an runs ye a quarter gallon o' rum bye ye fine an' most spirited Tuffy 6L6! A right brassy lassie she be!''.....

We ought to peruse the QST's and put out a bibliograpy of those articles for the group, perhaps.....

73/ZUT DE NA4G/Bob UP

p.s. Fred's articles from about 1937 through 1941 are the stuff radio legends are made of. Sadly, if my memory is correct, he went SK about 1941 or 1942. Few have been able to fill Tuffy 6L6's shoes on a QSL card, since..... A good friend, hereabouts on the list had the fortune to pick up an original QSL-40, back a few years. A fine lil' bottleburner it be. Mebbe I might's tempt him to fires her up, one more time fer a ditty on 3579R545..... Sounds like a fine winter's project.....

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Date: Tue, 1 Oct 1996 11:05:16 -0700  
From: haynes@cats.ucsc.edu (Jim Haynes)  
To: glowbugs@theporch.com  
Subject: Re: Good Paint Sprayers  
Message-ID: <199610011805.LAA24006@hobbes.UCSC.EDU>

On the other hand...years ago I wanted to repaint some Teletype cabinets with gray-green textured finish. I got some paint from a commercial paint store. It was thinned with naphtha. Then I bought the cheapest spray outfit Sears had, diaphragm type compressor and all. The paint wasn't supposed to be textured, but I got wonderful texturing, just what I wanted, because of the way paint came out of that sprayer in globs. Now if I had wanted a smooth finish I would have been out of luck.

-----  
Date: Tue, 1 Oct 1996 13:22:18 -0500  
From: Guy Dragoo <gdrag@proedge.com>  
To: "'Glowbugs'" <glowbugs@theporch.com>  
Subject: Group buy/build simple TX/RX  
Message-ID: <01BBAF9B.97A53940@ft249.computek.net>

Howdy keepers of the glow lite,  
I have been following the thread of the simple tubed TX/RX with allot of interest. I have several pieces of older equipment (Collins Junk) but have recently had a ball constructing recent vintage sandstate equipment (Sierra). I come from the new school of hams and am fairly unknowledgeable (read stupid) in both tubed and solid state theory and homebrewing. I learned code as

a kid in the 60's and built many a kit but have only recently gotten my license (got my Novice about a year ago and a few months ago finished upgrading to extra). Alas, in my misspent youth (not really...I have a house full of beautiful children to show for it) I found girls more interesting than radio and was sidetracked for a few years. With this house full of girls (read as 4...yeah, 4, ) my need for a diversion has risen as the mean age of the girls has risen (the good part is that they're learning code real well.). : {)  
Well, to make a long story short...maybe some of the experts here could come up with a good TX/RX combo with readily available parts and suppliers (or even a kit???) that all here could then construct. I would then suggest a follow thru with a scheduled get together of these new (old) beasts with others on this list with their like type (faint glow) equipment. In addition I would also suggest a contest for the standard things "most contacts", "farthest contact" as well as "prettiest", "ugliest", "most innovative", "oldest builder", "youngest builder", "best excuse for non-functioning unit", etc. The list could gather up the official categories.  
I'm afraid my expertise would only cause allot of blown fuses and burnt fingers but would be willing to help where I could. Just a thought...  
Thanks and 73  
Guy Dragoo AC5HL

PS Maybe a three stage project... TX, RX, then VFO and bandswitching???? It may never end...

-----  
Date: Tue, 1 Oct 1996 14:52:49 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: I 'ear a passle o' glowbugs about ta swarm.....(:+}}.....  
Message-ID: <9610011852.AA100346@csemail.cropsci.ncsu.edu>

I would personally like to welcome all the newcomers ('`young squirts'' as T.O.M was wont to call them) that have joined us in the past few days. Hopefully, the invite gets spread about some more, and you are all most welcome aboard for a long winter's watch.

I sense from the gist of the emails lately that there are more than a few glowbugs semi-out-of-retirement-dust-bunny-cultivating mode. Also, I sense that more than a few others will be resurrected, as the Phoenix, out of

the ashes of new and fine timbre (or timbers even!). That be truey a swarm o' them thar glowbugge thingies about.

As a suggestion, and since the usual QRG 3579R545 QTR 0200Z is often overrun with W1AW nearby UP and xx nets nearby DWN, I would propose that on Friday and Saturday nights (maybe more often) we see how many of us can stokes up our glowbug firebottles at a later time, when the West Coast can try to chime in, and when the peanut whistles can ring through the ether a little more clearly. I would be of the opinion that 0100EST (2200PST) might be a workable time where the big boyz are gone to beddybye and the glowbugs can come out and frolic.

So, if there is any interest in such a late net (after all, as we get older our needs for sleep drop, right, else the XYL be a' pickin' at us an' we needs a bit o' breathin' quiet, or mebbe we just needs a gentlemen's late nite pit stop, or such, so surely someone will be up then.....(:+}}.....), do let me know an' mebbe there be some breathin' room fer all them thar swarms o' glowbugges wat's be about, in the late nite, ta nips a few more spritely holes in de ol' ether.....

The fine winter's nite be short at hand.....

Rotten QRM will be gone.....

Crashing QRN will be gone.....

Wat better time fer a run on de ol' BA/GB QRG?

73/ZUT DE NA4G/Bob UP

-----  
Date: Tue, 1 Oct 1996 08:56:37 -1000  
From: Jeffrey Herman <jherman@hawaii.edu>  
To: Guy Dragoo <gdrag@proedge.com>  
Subject: Re: Group buy/build simple TX/RX  
Message-ID: <Pine.GS0.3.93.961001084016.13471H-100000@uhunix5>

On Tue, 1 Oct 1996, Guy Dragoo wrote:  
>contest for the standard things.... "ugliest",

Oh, I get that award. My 40M VFO was built on an old piece of wood, with copper nails as the solder points.

>"best excuse for non-functioning unit", etc.

I win that one too: In the above rig I thought I had found a proper

valued capacitor, but it turned out to be an inductor disguised as a cap. It had the proper capacitor markings on it, or so I thought. \* I found out it was an inductor only after breaking the outer shell and seeing very fine wire wrapped about a tiny spool.

\* I thought the number on it was in pF; turned out to be mH. Very cruel trick by some nasty manufacturer.

Jeff KH2PZ

DE NMO UP 440 KC . .

-----  
Date: Tue, 1 Oct 1996 12:21:06 -0700  
From: mjsilva@ix.netcom.com (michael silva)  
To: glowbugs@theporch.com  
Subject: GB request  
Message-ID: <199610011921.MAA05815@dfw-ix10.ix.netcom.com>

Being ever-curious regarding glowbug stuff, whenever I read something like "...so I built a four-tube receiver...", I always want to know more: What tubes? What I-F, Where'd you get the circuit, etc. I'd like to encourage everybody to add a little extra info in their rig descriptions (past and present), both because it's interesting and because it can lead to helpful "say, how'd you solve..." exchanges.

73,  
Mike, KK6GM

-----  
Date: Tue, 1 Oct 1996 15:53:10 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: gdrag@proedge.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: Group buy/build simple TX/RX  
Message-ID: <9610011953.AA100411@csemail.cropsci.ncsu.edu>

>  
> Howdy keepers of the glow lite,

Welcome aboard Guy Dragoo.

> I have been following the thread of the simple tubed  
> TX/RX with allot of interest. I have several pieces of

> older equipment (Collins Junk) but have recently had a  
> ball constructing recent vintage sandstate equipment  
> (Sierra). I come from the new school of hams and am  
> fairly unknowledgeable (read stupid) in both tubed and  
> solid state theory and homebrewing.

Here we mostly from one school, that of the kindrid spirit.  
Much can and will you learn, here, amidst this fine and worldly crew.

> I learned code as  
> a kid in the 60's and built many a kit but have only  
> recently gotten my license (got my Novice about a  
> year ago and a few months ago finished upgrading to  
> extra).

Well, ye has done right fine, there, fer sure. Ol' yers truely were  
a novice fer 7 long years o' pennance (cuz he had no right smart  
larnin' and were a listenin' to de musick o' the code, rather than  
the intelligence carried through the code). But, stickin' wid it  
made the challenge o' ham radio more fun than almost anything.

> Alas, in my misspent youth (not really...I have  
> a house full of beautiful children to show for it) I found girls  
> more interesting than radio and was sidetracked  
> for a few years. With this house full of girls (read as  
> 4...yeah, 4, ) my need for a diversion has risen as the  
> mean age of the girls has risen (the good part is that  
> they're learning code real well.). : {)

Well, I gots 4 feisty women aboard ship, 'ere, too, and when they be  
scrappin', it makes fer some fine time ta dives fer da bilges, where  
some peace an' quiet they be. Only one o' mine seems to be interested,  
although the all learned some tidbits here an' there, until boyz came  
along.

> Well, to make a long story short...maybe some of the  
> experts here could come up with a good TX/RX combo  
> with readily available parts and suppliers (or even a  
> kit???) that all here could then construct.

Sadly, OT kit suppliers seem to be as scarce as hen's teethies.  
But there is sufficient collective treasure amongst the group,  
and enough odd wisdom to provide some fair sources for things.

Thoughts for a standard issue Glowbugge Novicey Rigge:  
\*\*\*\*\*

Transmitteringespitzensparkendevise ---

1. Keep the tube simple and standard, but broadly sourceable. Something like a commonly based tube such as the 6K6/6G6/6F6/6L6/6Y6 line or the /2E24/2E26/6146/6159 line. These would be relatively common and can all use a standard replacement commercial octal relay socket. (The socket works well breadboard or chassis mounted.)
2. Keep the design simple and standard, without great tricks to adjustments. Consider a plain pentode oscillator using a 3579 colorburst rock with a pi-network output coupled to a series LC antenna tuner to a 65 foot end fed wire with a 65 foot counterpoise wire laid on the ground. Simple, effective, and it really works well.
4. Use a simple power supply taken from a battery/ac design that can use 6/12 vdc or vac on the filament, and 250-600 vdc on the plate. Use a common dropping string for the screens and it will be stable and few in parts.
5. Make it breadboard or chassis or cabinet mountable, as suits your tastes, and pocketbook, but KEEP IT SAFE for prevention of SK status. (Exhalted SK status is NOT acceptable for any glowbuggite.)
6. Key with a relay and proper key thump filter (lag circuit, key click preventer circuit).
7. Wind the coils from no. 14 household solid copper wire on plain PVC (black or white) pipe of about a 2 inch size.
8. Use standard RF chokes and bypass capacitors, although almost anything can be used in most instances, and the junque box is important, here.
9. Liberate the 3579R545 rock from an old tv if possible (more fun) or order one from one of the odd electronics houses.

#### Receiverinhalargeetherischesburnindevice ---

1. Use a well proven design, probably a 2 or 3 stage regenerator. (Superhets can be done, but are hard to reproduce parts for lately).
2. Use standard tubes such as a 12AT/U/X/V7 line or 6SN7 line or a 6SK7 or 6BE6 sort of thing for the detector and first audio. Use a companion transmitter tube as the audio output tube. Note that it is entirely possible and quite effective to use a transmitter tube as a regen detector/audio tube. I have used 6L6/6V6 lines in this way several times and they work VERY well on 24/36/48 volts plate.

3. Wind the coils on more PVC.
4. Use a similar chassis as on the transmitter.
5. Use a battery power supply for quietness and portability.
6. Audio interstage transformers can be a problem, although they are still available, or old Motorola VHF stuff can be cannibalized for the audio transformers, or use filament transformers, or use choke impedance coupling with a 10-30h filter choke.

VFO ischedevicen ---

1. Use a standard Hi-C ECO hartley/colpitts/clapp design.
2. Use a standard transmitter tube or a 6AG7 or a 12BY7 or a 6CL6. Run it at LOW voltages not exceeding 250 volts to keep stability good.
3. Provide a simple spot switch for frequency spotting.
4. Put a regulator tube on the screen grid for best stability.
5. Put in a good shielding box for best stability, although breadboard will work fine if set up carefully.
6. Key BOTH the VFO oscillator and the transmitter together, using a good relay for best action and QSK operation.

Those are the most important points I can think of right off.  
Others can add volumes more detail.

> I would then  
> suggest a follow thru with a scheduled get together of  
> these new (old) beasts with others on this list with their like type  
> (faint glow) equipment.

We have a standard set of BA/GB nets:

QTR 0100Z QRG 7050KHZ  
QTR 0200Z QRG 3579R545KHZ  
QTR 0300Z QRG 1802R500KHZ  
QTR 0400Z QRG 3579R545KHZ  
and possibly  
QTR 0500Z QRG 3579R545KHZ



QTR 0600Z QRG 3579R545KHZ

Lots of activity on the 0100 and 0200 QTR.

> In addition I would also suggest a contest for  
> the standard things "most contacts", "farthest contact" as well as  
> "prettiest", "ugliest", "most innovative", "oldest builder",  
> "youngest builder", "best excuse for non-functioning unit", etc.

This would be most definitely a run for the money!

I know Grandma Hartley is the plug-ugliest thing since spark sets, but,  
she do put out a fine whirrin/purrrin sound, when she be warmed up, she do.

> The list could gather up the official categories.  
> I'm afraid my expertise would only cause allot of blown  
> fuses and burnt fingers but would be willing to help  
> where I could. Just a thought...

Your thoughts are well taken.

Well, fellers, puts yer guildern de realme where yer choppers they be,  
an let's make somethin' happen!

> Thanks and 73  
> Guy Dragoo AC5HL  
>  
> PS Maybe a three stage project... TX, RX, then VFO and bandswitching????

I prefer non-bandswitching for simplicity, but then, I am a simplist at heart.

> It may never end...

Never do it endeth, but on and on it goeth, forever.....(:+\.....

73/ZUT DE NA4G/Bob UP

-----  
Date: Tue, 01 Oct 1996 15:42:41 -0400  
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>  
To: glowbugs@theporch.com  
Subject: Re: Thermionic emission  
Message-ID: <9610011942.AA06073@speckle.ncsl.nist.gov>

At 11:51 AM 10/1/96 -0400, you wrote:

>by "toobe" no doubt you're referring to TEFEDs (Thermionic Emission Field

>Effect Devices), right? (chuckle)

Or is it SWARM effect (with polite reference to the recent post by Bob Keys about swarms of globugs on the late night ether.)

I think of those electrons as being a little like the boys at the high school dance - all huddled at one end of the gym not ready to make the dangerous crossing to the girls side, but pulled mightily just the same (with polite reference to virtual cathodes and all that.)

I'm planning a little time off in the next two weeks - I may get out the books on how toobes work.

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
(National Institute of Standards and Technology, formerly NBS)  
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

-----  
Date: Tue, 01 Oct 1996 15:54:34 -0400  
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>  
To: glowbugs@theporch.com  
Subject: Re: Tube gear (fwd)  
Message-ID: <9610011954.AA06154@speckle.ncsl.nist.gov>

At 01:06 PM 10/1/96 -0500, you wrote:

>  
>01' Fred's stable of Tuffy 6L6 and her brethren are a must reading for  
>any self-respecting Globuggite. ... ``Battens ye down  
>yer hatches, an runs ye a quarter gallon o' rum bye ye fine an' most  
>spirited Tuffy 6L6! A right brassy lassie she be!''.....

Glowbuggers:

Here's what \*I\* think you should do:

First, build the Hartley from the plans Bob has posted (the 1934 QST article), and use a type 45 tube if you can find one. Build it strong and tough and don't scrimp on the parts.

Second, buy from Svetlana an SV811-3 tube (\$30), and plug it into the same rig, get an 800 volt power supply, and run an eighth of a killowatt.

Third, spring for \$80 and buy one of their SV573-160's with the carbon cathode and run a toasty one-third killowatt.

THEN we'll see what signals pierce through the ether o' these late nights on the ol' QRG!

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
(National Institute of Standards and Technology, formerly NBS)  
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

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Date: Tue, 1 Oct 1996 16:24:21 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: Recycling old Childrens Bander Gear for parts  
Message-ID: <9610012024.AA100462@csemail.cropsci.ncsu.edu>

Quite often, one can obtain one of the sillychildrensbanderische outboard VFO's (slush boxes, out-of-bander boxes, freebander etc.) for as little as a buck at hamfests. They were originally Swan-like things that were marketed by a place known as Siltronix. The dials are magnificent Jackson Bros vernier ball drives. The scale can be removed with some careful sanding of the white plastic and remarked using india ink. The guts can be easily rewired into your favorite glowbugging device such as a regen receiver or a vfo with little effort.

Food for thought and a GREAT way to recycle dead CB junque.

Bob/NA4G

p.s. a good source of xtal sockets for glowbugs is old Motorola tube gear that noone even in the vhf crowd is willing to fix anymore.

p.s. a good source of fine wire for winding coils or rf chokes is the dud/dead/erstwhile unusable computer monitor boobtoob focusing coil assembly [same holds for deaden televiseoricenboxen which also will contain the illusive 3579R545khz rock].

p.s. a good source of heavy wire plus other assorted parts is dead microwave ovens [although they are sometimes hard to tear apart].

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Date: Tue, 1 Oct 1996 16:43:13 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@csemail.cropsci.ncsu.edu, at@csemail.cropsci.ncsu.edu,  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: More construction thoughts -- capacitors  
Message-ID: <9610012043.AA100493@csemail.cropsci.ncsu.edu>

Well, some thoughts on variable capacitors and fixed capacitors for tuning of glowbugs, etc.

1. Receivers usually work best and have the sharpest tuning with the LEAST amount of grid capacitor. USE A 1-Plate tuning capacitor as the main tuning on the receiver and no padder capacitors. That will give about a 20-25pf tuning capacitor which will cover the cw portion of a band only, with good accuracy. If tuning linearity is important you will have to pad down with an additional 25-50pf max (try not to though unless you really need to --- add turns to your coil if you need to change the bandset rather than add capacity).
2. Transmitters usually work best with HI-C, or A LOT of grid capacity. But, it is still much better to use a single or dual plate capacitor as the main tuning capacitor and pad the dickens out of it to bring it down to the right frequency. That way the tuning will be linear AND the thing will bandsread maybe 100KHZ across the full dial.
3. Get good at scrounging capacitors of the variable and paddable ilk. It is hard to buy them new. Digge Deepe in Yonder Boxes UNDER the hamfest tables for real treasures.
4. The ambitious constructor can make pretty good padding capacitors suitable for the largest transmitters by building them in the OLD FASHIONED way, if room is available in the chassis. Use a stack of offset square or rectangular aluminum plates of maybe 1/32 inch or a little more or less thickness intersandwiched with 1/8 inch glass plates cut at the local hardware shop. It works fine, and is entirely practical for most glowbugge and even monsterbugge designs.
5. It is difficult to make good variable capacitors of much capacity in a small package. It is easy to make them in biggie packages. Use a book form capacitor (sheets rotating narrower or farther appart) or a sliding form capacitor (plates sliding into each other edgewise). Again, use glass spacers.
6. Make small antenna feeding capacitors for grid loading of regen receivers out of 3/4 or 1 inch aluminum angle stock, and have the two angles standing next to each other and slide them closer or farther apart along one surface at a 90 degree angle to their

axis.

Gawsh dern, I be windy and wound up today.....

Bob/NA4G

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Date: Tue, 1 Oct 1996 16:57:56 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: morgan@speckle.ncsl.nist.gov  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: Tube gear (fwd)  
Message-ID: <9610012057.AA100504@csemail.cropsci.ncsu.edu>

> Glowbuggers:  
>  
> Here's what \*I\* think you should do:  
>  
> First, build the Hartley from the plans Bob has posted (the 1934 QST  
> article), and use a type 45 tube if you can find one. Build it strong and  
> tough and don't scrimp on the parts.

Well, 45's be a tad hard to find, but almost any triode will work, in  
that circuit, even an 833 broadcast transmitter pull.....(:+{}.....  
These 833's can be had for 5 bucks often at hamfests as pulls.

If you build it big time, scale up all the physical parts to handle the  
load. The coil should be 1/4,3/8,1/2 inch tubing for the 100/250/1kw class.

> Second, buy from Svetlana an SV811-3 tube (\$30), and plug it into the same  
> rig, get an 800 volt power supply, and run an eighth of a killowatt.

I talked with the designer/fellow who was in on telling Svetlana how to make  
the good 811 into this single ended '10 style form factor. He was telling  
me it should work quite well in Hartleys et al..... The result was this  
SV811-3 (lo-mu) and SV811-10 (hi-mu) tube designs. He may slip me one  
of the prototypes to play with. If it will work in Grandma Hartley  
I will be most pleased. He suggested the -10 rather than the -3 because  
of the higher gain at RF. He builds those hotrod audio amps, commercially,  
and is always chasing after my '211's, but I think he is on the level on  
this Svetlana thing. I may give him a call this week and see if I can  
get one for test purposes.

> Third, spring for \$80 and buy one of their SV573-160's with the carbon  
> cathode and run a toasty one-third killowatt.

Well, now were in the 250 watter style ballpark!

> THEN we'll see what signals pierce through the ether o' these late nights on  
> the ol' QRG!

Actually I have been saving up 833's for such a project, and have most of the parts ready to go. Still need to finish a coil and get everything mounted. I figure about 600v at 100ma on the 833 should make it idle like a pussycat, but roar like a lioness. For testing I have a 300v plate battery at one amp ready to go. I still need a good RF choke wound for it, yet, but it is getting there.

> -- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899

73/ZUT DE NA4G/Bob UP

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Date: Tue, 1 Oct 1996 16:47:31 -0400  
From: Thorelect@aol.com  
To: glowbugs@theporch.com  
Subject: WTB: Tubes  
Message-ID: <961001164730\_298249481@emout06.mail.aol.com>

We are looking to buy industrial and transmitting tubes. Please sen email if you would like to receive list of types we are buying.

Thank you.

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End of GLOWBUGS Digest 309  
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